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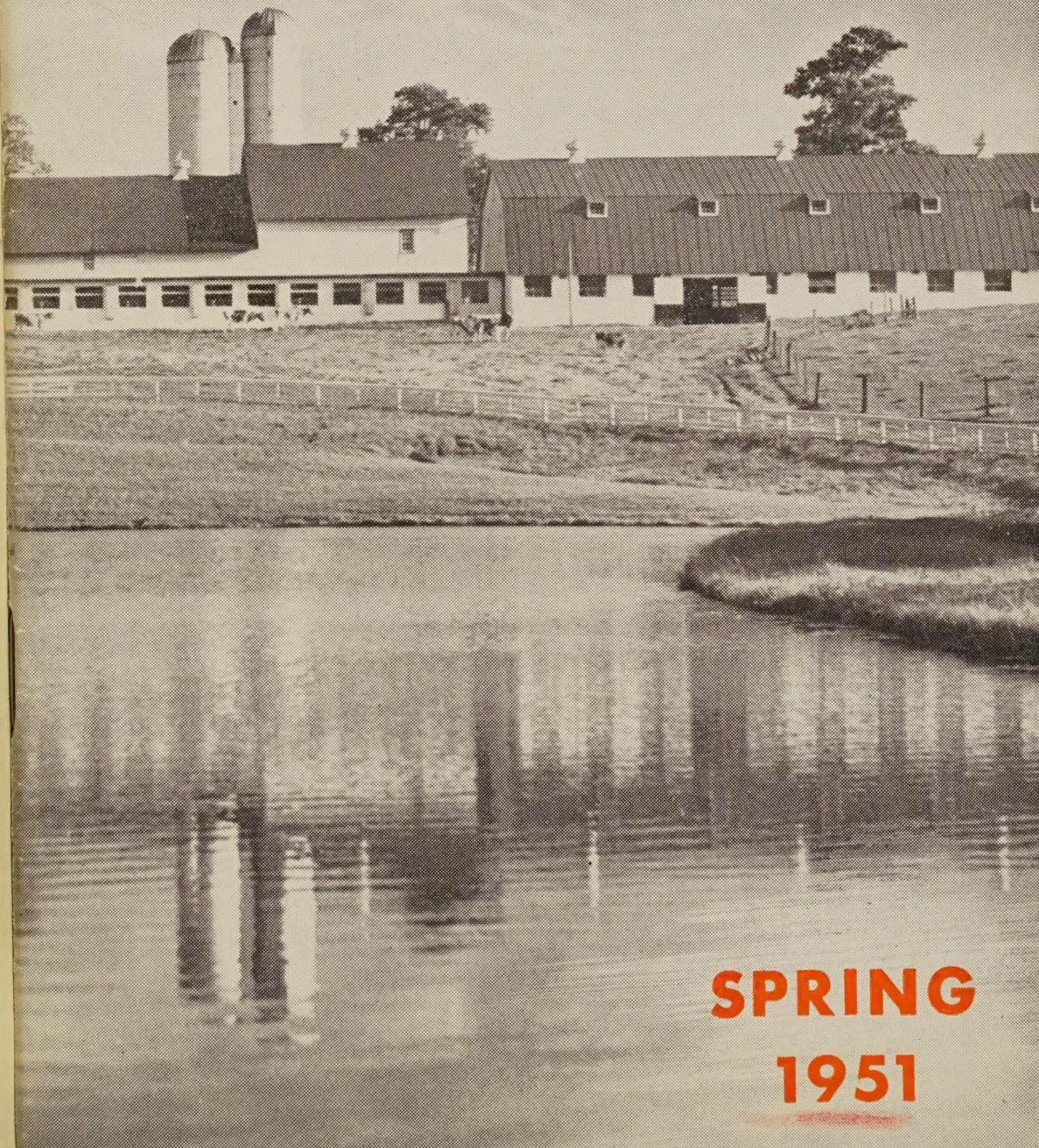
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A.H.
~~Lancaster~~ U. S. Department of Agriculture

Hoffman farm SEEDS



SPRING
1951

Crop Time is PAY Time



All other days of the farm year are "past history" when cropping time arrives . . . any crop-gathering time—making hay, turning livestock out to pasture, cutting the summer grain-harvests, filling the silo, or husking corn.

Some of those past-history items can count for so much toward the PAY the crop provides. Starting any crop with the right seed is one that is so important!

The mission of this book is to provide you with seeds that have the in-bred ability to do your various crop jobs *right*.

Put these seeds to work on your farm. Let them help you toward realizing better-paying crops!

NEW in size and arrangement . . . this book was designed for your handy reference throughout the year:

LEGUMES, the soil-building crops (pages 4 to 19). Their leaves, stems and seeds are high in protein of greatest feed value. Legumes gather nitrogen from the air to make it readily available in plant-food form. They act as hosts to beneficial soil bacteria that live in nodules on the plant roots. As continuous cropping reduces soil fertility, Legumes provide the best and cheapest means to keep up soil quality. Should be used on every farm. Included in every crop-rotation system. Legume seeds should be inoculated each time sown.

GRAIN CROPS (pages 20 to 33). Dependable strains of proven merit. Recommended for profitable crops.

GRASSES (pages 36 to 44) adapted to successful use in the Northeast. They play an important rôle in the agriculture of the area. Space prohibits long descriptions, but these pages furnish safe guidance.

FORAGE CROPS (pages 45 to 48). One of these might very well serve you in a "pinch" or emergency. Maybe to replace a suddenly injured or shortened crop of your regularly planned rotation.

SEED POTATOES (page 49) from careful suppliers of disease-free stock. Car-lot inquiries solicited.

SUGGEST you today select a certain desk drawer as the permanent "home" for this book through 1951. And any time that you would like additional information that our files might contain, about seeds or cropping practices, please write. Your seed orders will be appreciated. THANKS!

Complete SEED INDEX with sowing details—
page 50



**A. H. HOFFMAN, INC.
Landisville (Lancaster County), Pa.**

Alfalfa . . .

#1 Legume

A quick glance at official reports would indicate the world supply ample. But Alfalfa seed produced in so many sections is not at all adapted for sowing in the Northeast. Prettiest seed, lowest-cost seed, is the easiest available . . . but unfit! The desirable-source seed is the problem. Hard to get. In big demand.

Readers know the great value of Alfalfa . . . its high content of protein, calcium, riboflavin, carotene. How it outranks so many other crops. Valuable as hay or ground meal. High carrying capacity as nutritious pasture. Fine soil-building properties.

"NORTHWEST" Brand Alfalfa Seed

On thousands of farms in the East and North, Hoffman Quality "Northwest" brand seed has provided heavy cuttings from long-lasting stands. Seed from states of the Rocky Mountain area or similar cold sections; the U. S. Verified Origin tag coming to you on every bag shows the state in which your seed was grown. Seed that came from robust, sturdy parent plants . . . plants that had to be rugged enough to come through the exceptionally tough winters, the short seasons, and the other adverse conditions that are the rule in those areas.

This seed is from strains known to be dependable heavy yielders of quality hay. High tonnage. Clean, thrifty stands, 4, 5 years old, even older, have not been unusual. Large, vigorous root systems are produced to resist cold winters, and to send up prolific growth in the summers.

You are protected by the rigid Hoffman requirements of quality, purity, and growth.

Inoculate Alfalfa Seed . . . Always!

Neglect of proper inoculation helps cause Alfalfa crop failures. Inoculation gives Alfalfa extra vigor . . . the boost it needs for a head start in the race with weeds. Pays dividends not only from better Alfalfa crops, but also extra dividends from better crops that follow on that soil. Increases protein content of Alfalfa hay. (Read page 17.)



*Every extra load means
a "pay raise" for you*

**For Top Crops Sow
DEPENDABLE
Hoffman Seed**

Your Protection: All Alfalfas described (except Certified or Canadian) are verified as to the state where grown, by the U. S. Seed Verification Service.

"GRIMM-Type" Alfalfa Seed

Some Hoffman patrons prefer this type of seed. It is produced in relatively the same areas from which Hoffman "Northwest" brand seed is secured.

A consistent producer of good crops . . . always classed among the leaders in hardy Alfalfa. "Grimm" is tough; able to withstand wide weather extremes, especially in the North and at high altitudes. Crowns seem to set low, and roots often branch out to afford much protection . . . seems to pull through many winters that are hard on other Alfalfa. Here is strictly top-quality, high-producing, clean seed . . . stocks are not large . . . order quickly.

Certified "Grimm." Every bag is under supervision of its state department from the field to you. It is sealed at the thresher, checked and resealed at every cleaning operation. Demands a premium with its assured genuineness. May not be available this season, but if in stock, see Price List for quotation.

"CANADIAN VARIEGATED" Alfalfa

Long-time favorite on many Eastern and Northern farms. Never in abundant supply, or would be still more popular. Heavy cropping, hardy, long lived.

THE NEW STRAINS OF ALFALFA

Plant-research men have come through in recent years with several improved Alfalfa strains, including:

BUFFALO Alfalfa (Certified)

A strain highly resistant to bacterial wilt, one of America's most serious Alfalfa diseases. Bred to survive and yield well in spite of this enemy. Originated in Kansas. Shows more rapid recovery after cutting than ordinary strains, larger fall growth, and a higher stand of survival.

Buffalo seed supply is limited. Quick orders urged. This strain is recommended for trial throughout most of this area. It may prove ideal for your conditions. Has already won many friends. Seems destined for wide use.

RANGER Alfalfa (Certified)

A multiple-strain development from selections of Cossack, Turkestan and Ladak varieties. Started in Nebraska. About equal, but not superior, to Grimm in winter hardiness and in ability to recover after cutting. Its outstanding trait is the resistance shown to attacks of bacterial wilt. Not as popular as Buffalo here in the East. Preferred on some New York State and other Northern farms.

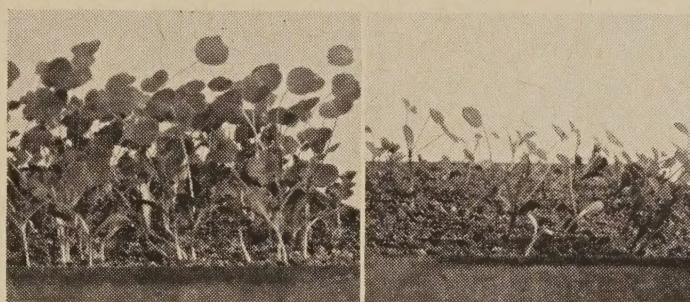
ATLANTIC Alfalfa (Certified)

Developed by New Jersey. Not as wilt resistant as Buffalo or Ranger. Adapted to short rotations. Existing seed supply small. Order instantly.



NEW . . . A Seed Treatment to Increase stands of ALFALFA

**Note this
158% Better
Stand. One
pound of
treated seed
made as many
plants as 3 lbs.
untreated.**



This is a duPont (dust-form) product—doing a fine job. Purpose is to reduce blight, avoid root rot of tiny seedlings right after sprouting—before they emerge from the soil.

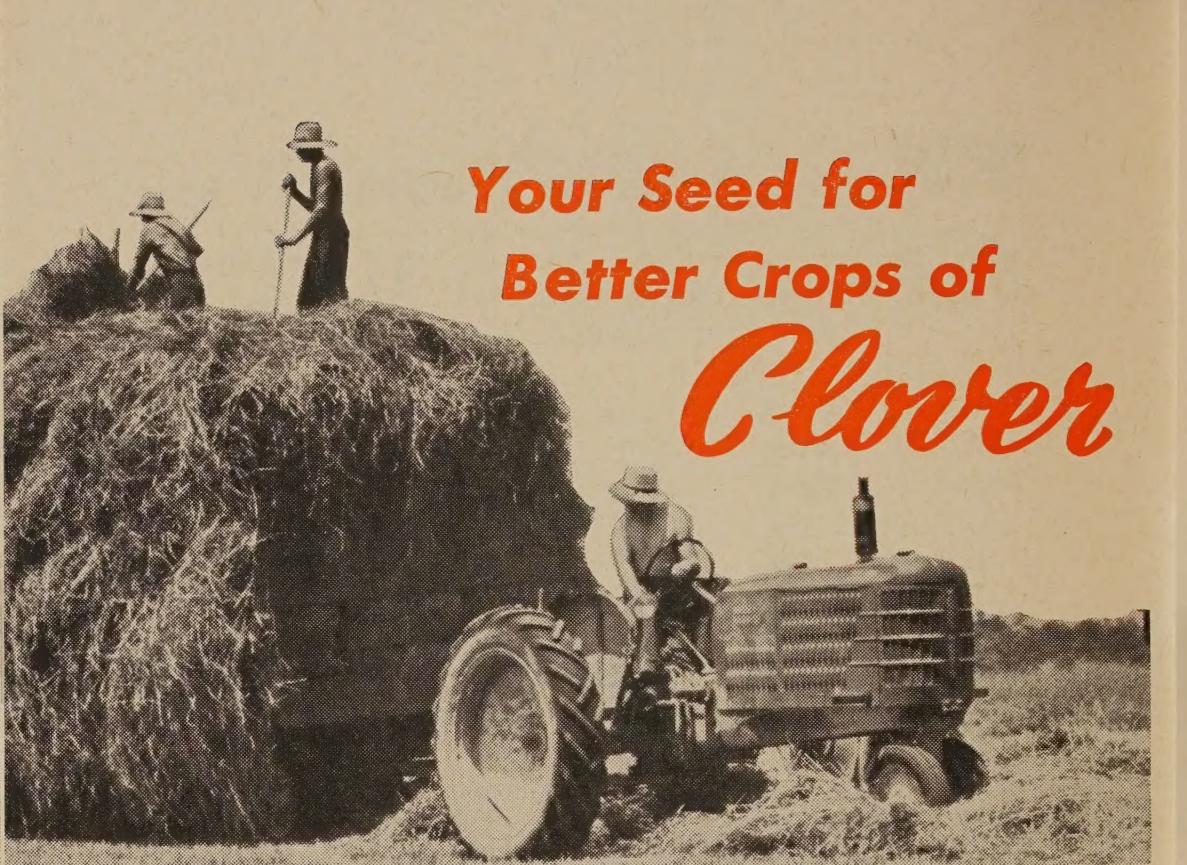
Arasan treatment coats the seed with dust to protect seed and seedling in the soil against fungi.

Too long overlooked has been the killing off of tender seedlings, blighted before they could break through the ground. The ones that would get through showed but little evidence of disease. By digging into drill rows, it was discovered that many other seeds did germinate . . . but often their tops and roots had been killed. Hence the effort to get more tiny plants up—past that stage of high seedling mortality . . . thus the stand of healthy plants made much better. That's what Arasan is doing.

Apply Arasan . . . Then INOCULATE, Too!
Treat Legume seeds with Arasan. Later, inoculate when sowing. There is no interference by either treatment. Both are great aids to better crops.

Arasan Valuable on Other Seeds, Too
Success of Arasan on Alfalfa has been outstanding. Sudan and Timothy have been helped greatly. Some of the other Legume seeds showed favorable results—Birdsfoot Trefoil, Alsike, Red Clover, Lespedeza, Soybeans. Some of the pasture grasses also.

Arasan does not contain mercury or other metal . . . non-poisonous. Eight ounces treats 100 pounds. In 3 sizes: 8-oz., \$1.10; 4-lb., \$6.20; $\frac{3}{4}$ -oz., 30¢.



Your Seed for Better Crops of *Clover*

RED CLOVER

Hoffman Red Clover seed represents strictly top quality. The choice of available seed. Seed from dependable sources. Tested seed that shows freedom from foul weeds. And seed of sound growth. True, this requires constant watching and most careful selection. But that's our job here . . . trying to supply you with the seed that will do your crop job right. Your reliance upon Hoffman Quality seed will help provide good clover-crop insurance.

(Certified) "CUMBERLAND" CLOVER

Disease-resistant strain Cumberland Clover was bred to resist attacks of "stem spot" (anthracnose) disease. Has been making good records; is gaining at a rapid rate. One 4-year series of New Jersey tests averaged better than 3 tons of hay per acre, an increase of 19 to 32% over other competing strains. With proper management, Cumberland was shown capable of furnishing a good stand for 2 years of hay cutting. Its good yield and long life increases its popularity; greatly offsets its small extra cost. Quick orders are urged. Replacement may not be possible later.

Certified "KENLAND" CLOVER

A still newer disease-resistant development of Red Clover than Cumberland. Shows favorably, too.

Especially where southern anthracnose disease is prevalent. When the disease is not a limiting factor, Kenland has been yielding right up with other strains. Is longer lived, maintaining good stands into the third year, or second harvest year. Supply short.

ALSIKE . . . the Sure-Cropping CLOVER

No other clover, year in and year out, shows up as favorably as Alsike. Survives most any weather. Produces fine hay, often when its companion plantings almost disappear. Withstands acid soils quite well. Small seeded, it "goes farther" at sowing time. Dependable on wetter soils. Is a sure catch, not subject to usual clover sickness. Sow clean, hardy Hoffman Alsike seed.

INOCULATE Each Clover Seeding . . . IT PAYS!

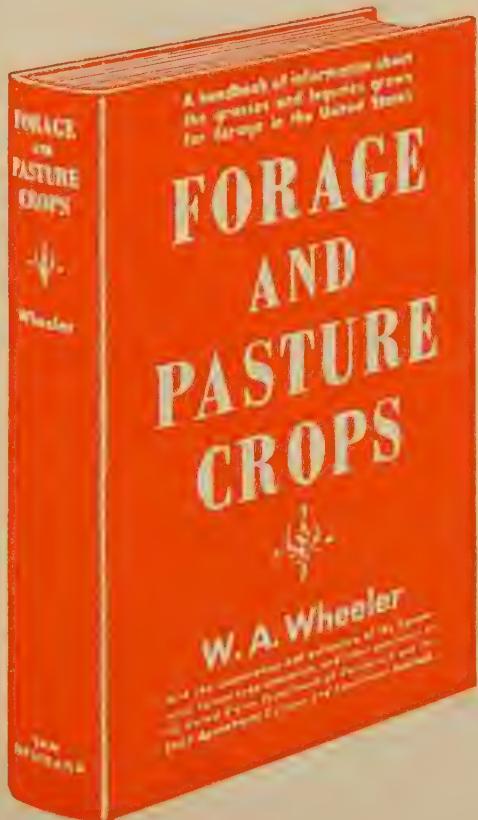
Clovers—other Legumes . . . (following pages)

Get This “CROP-DOCTOR” Book

An amazing new book you should own. Keep it handy. You'll always be thankful. Never such a vast, complete storehouse of facts. Gives the whys, hows, other answers on today's best farm-crop methods. Discusses best uses of all the Legumes, grasses,

green-manure crops, soil improvement, meadow and pasture betterment. Value of grass-legume mixtures. Silage highlights. Pest and weed treatment. Many other important subjects.

750 pages. Tremendous value. Authentic. Prepared by a personal friend, W. A. Wheeler. Will prove a highly prized, often-used piece of equipment on any farm. Order your copy today, \$7.95 postpaid. (Check with order, please. No C.O.D.) An investment you'll appreciate all the years you farm.



"MAMMOTH" (Sapling) CLOVER

This year, more acres may be sown to Mammoth Clover (sometimes called Sapling). It makes a heavier top growth than regular Red Clover. Is preferred for the poorer, more sandy soils. Just one crop of hay can be harvested in a season, since it does not recover quickly. On the other hand, Mammoth is generally longer lived than is the regular Red Clover. That may account for its presence in many pasture mixtures. Cultural methods are generally the same.

SWEET CLOVER (3 Types)

A great soil builder. When turned under, adds much organic matter. Improves water-holding capacity of soil. Also provides emergency pasture till other grazing areas are ready. Has been used to cover bare spots—thicken the stands on thin pastures . . . using 5 to 10 pounds with 15 pounds of Rye Grass.

"YELLOW BLOSSOM" TYPE

Aggressive, hardy. In many cases, can be profitably substituted for the usually higher-priced White Sweet Clover. Has gained in Eastern use.

A perennial, with a smaller top growth than the white blossom strains. Grows 2 to 3 feet the first year, higher the second. Finer stems; many prefer it.

MOSTLY "WHITE BLOSSOM" TYPE

Lasts 2 years. Planted in the spring, will make good growth by fall. Will reseed itself if left standing. Practice in the Central States is to sow it in the late summer. Thus, does not get too large a root system before the following spring . . . makes not-too-large plants, furnishing quite good hay.

"HUBAM" (White Blossom) Annual

Developed in Iowa. Lives but 1 year. Resembles the biennial in appearance, except in plant size—it produces less growth. Where a catch crop is wanted, especially when the field is to be fall plowed, Hubam is useful. Supplies good spring pasture under favorable moisture conditions.

HOW MUCH HAY IN THE MOW?

About 500 cubic feet of well-settled hay, or about 700 of new-mown hay will make a ton. Ten cubic yards of meadow hay weighs about a ton. 8 or 9 yards out of an old stack is about a ton. 11 or 12 cubic yards of clover, when dry, will make a ton.

TIMOTHY **"Farmer's Choice"** **Quality**

Certainly not a Legume, but because it is such a popular companion of the leading Legumes, Timothy is listed here among them. Everyone is well acquainted with this crop—no need to here list its merits. Just one statement . . . "Farmer's Choice" brand Timothy seed bearing the Hoffman tag will be of strictly high quality.

TIMOTHY AND ALSIKE

No question about these two grasses doing a good job when sown together. They form a fine team on low ground. Hundreds sow this seed (about 20% Alsike Clover) each year at a saving, and get good crops of mixed hay.

"ECONOMICAL MIXTURE"

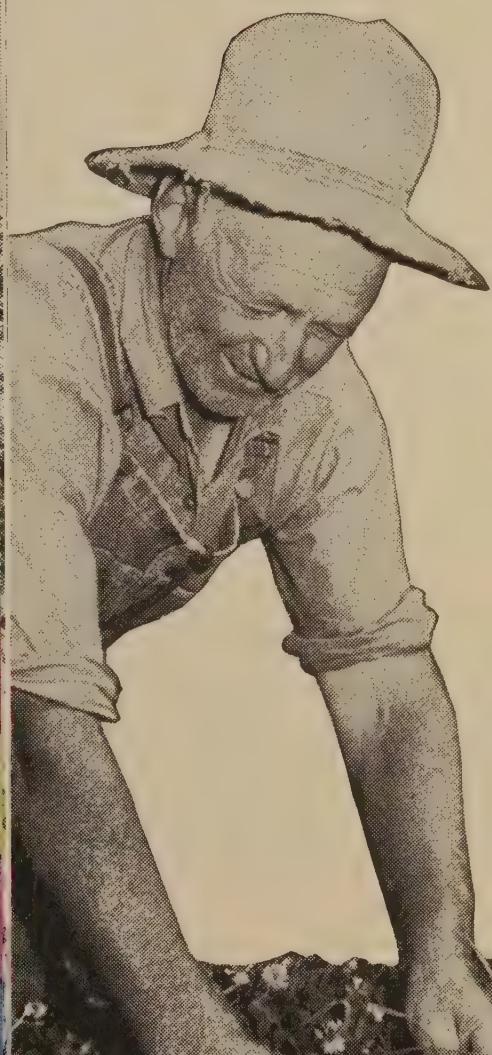
(About $\frac{1}{2}$ Red Clover; $\frac{1}{4}$ Alsike; $\frac{1}{4}$ Timothy)

Shown above is the average content. At times during the season, the proportions may vary slightly. Some lots may carry a little Alfalfa, sweet or other clovers. This offering is composed of various lots of seed sometimes harvested in this mixed condition, hence the lower cost and possible slight variations in formula. Always of sound growth—free of foul weeds. Popular for years.

Ladino

The Miracle Pasture Legume

Dairy cows reach high production on Ladino. More and more folks in the sheep, hog, or poultry business are finding Ladino pasture helpful toward better production—at lower feed cost. Ladino and its com-



Unequaled in carrying capacity.

Excellent for grazing.

Unrivaled in its protein and calcium (lime) content.

Rich in phosphorus.

High in carotene, which is the source of vitamin C.

Indicates high palatability to all classes of livestock.

Has relative freedom from disease.

Shows rapid recovery after mowing and grazing.

Gives up more nitrogen to companion grasses planted with it than any other of today's popular Legumes.

One pound (680,000 seeds) sown on 1 acre means 15 seeds per square foot.

panion grasses are supplementing regular pastures on many farms; replacing them on others. Grazing from the same acreage has often been doubled, or more—and with palatable, rich feed.

Ladino is a tall-growing, leafy form of White Clover; spreads by runners. A perennial, extremely vigorous. If a uniform seeding can be made, 1 pound to the acre is usually sufficient. One caution: Ladino seed looks exactly like ordinary White Clover seed. There is no true Ladino sold at bargain prices. Hoffman patrons get true-type (Certified) seed.

High-Production Pasture

Authorities now feel that some Ladino should be included in EVERY pasture mixture. Along with 1 pound of Ladino, 2 or 3 pounds of Alsike are often included to help thicken the stand the first year. Where Alfalfa does well, add 5 or 6 pounds; where unreliable, 3 or 4 pounds Red Clover. Orchard Grass has become a popular partner for Ladino. If kept down early by cutting or grazing, remains palatable and grows during hot, dry months. 4 or 5 pounds is usual rate. Tall Meadow Oat, 6 to 8 pounds per acre, may be palatable—does not stand grazing as well. Brome, 8 to 10 pounds per acre, is good, yet slower to recover after grazing, and Ladino may get ahead of it. Meadow Fescue has been used successfully on moist, fertile soils. 8 pounds Reed Canary is sometimes put where too wet for other grasses. 4 to 5 pounds Timothy may be included, but does not stand grazing well—makes little growth in dry weather.

Triple-Purpose Ladino Mixtures for Hay, Pasture, Grass Silage

Some of the finest crop land, once considered too valuable for pasture only, now brings in excellent returns from the high-acre, three-way value of these mixtures. A good basic formula is 4 pounds Timothy along with the winter grain, and 4 pounds each of Orchard Grass, Meadow Fescue and Red Clover, with 1 pound Ladino in the spring. On poorer, wet soil, 3 pounds Alsike can be added. On fertile, well-drained soil, 5 pounds Alfalfa may be added.

Ladino to Replenish Old Stands

Ladino and suitable grasses do a good job of “pasture renovation” where poor, thin sods are disced

thoroughly and reseeded after adequate liming and fertilization. Ladino and grasses can be introduced into thin Alfalfa stands, without plowing, by harrowing and seeding in spring, or after cutting.

Ladino With Hay Seedings

One pound Ladino to the acre, along with the regular Clover and Timothy seedings for hay, has been successful in some Northern areas. After the first year, makes hay and excellent pasture after haying.

Ladino Poultry Ranges

Being high in proteins and vitamins, Ladino makes a fine range. A popular mixture in New Jersey is 4 pounds Rye Grass, 8 pounds Orchard Grass, 4 pounds Alsike, and 2 pounds Ladino. In New York, good results have been obtained using 12 pounds Kentucky Blue and 2 pounds Ladino. Many other poultry formulas are employed successfully.

Ladino Hog Pasture

Hogs make fine gains on Ladino pasture. Many users prefer a heavier proportion of clover for this purpose than for dairy pasture. Brome and Timothy are the usual grasses in these mixtures.

Ladino in Orchards

Ladino is coming into use as an orchard cover crop. One advantage is that it has a shallow root system . . . does not compete too much with the trees for moisture during dry weather.

Good Care of Ladino Is Important

Dairymen have found Ladino demands heavy grazing for short periods. Under good growing conditions may require 8 to 12 cows per acre at one time to keep the grasses down. Should have frequent rest periods to make new growth and build food reserves. Close grazing in late fall may be injurious.

Fertilizer is important. When seeding, apply 400 to 500 pounds of 4-12-4 or 3-12-6. Fertilize each year, September preferred, adding 300 to 400 pounds 0-14-7 or 0-12-12 annually. Manure and superphosphate is sometimes used as top dressing; however, manure may tend to stimulate the grass in the mixture to the extent that it might crowd the Ladino unduly. Soil should contain a fair amount of lime—pH of 6 or higher for best results.



A dense mat of Birdsfoot Trefoil over a field once abandoned.

BIRDSFOOT TREFOIL

Last year saw a big increase in the sowing of this Legume. Birdsfoot is not too exacting in soil requirements. Recommended for hill land dairy farms. Good on heavier valley soils. Acid or low-fertility ground should be well limed and fertilized.

Valuable for hay in perennial meadows. Also on upland. Used in permanent pasture mixtures, where it stays green, producing excellent feed during hot summer. Often in contrast to other Legumes intended for similar use, which tend to dry up. Used, too, where other shorter-lived Legumes like Red Clover can be used to supply feed the first year or two, until the Birdsfoot gets established.

Birdsfoot Trefoil produces hay relished by cows. Has high feed value. Helpful in grass-silage programs. More drought resistant than Ladino. A heavy producer, slow starting. Helps fight erosion.

Inoculate. Sow early. 5 lbs. Birdsfoot and 6 lbs. Timothy per acre, with 1½ bu. Oats or Barley. Drop seed behind grain spouts for shallow coverage.

"WHITE DUTCH" CLOVER

A low grower, spreading, long lasting. Palatable and nutritious, high in protein. Withstands trampling, close grazing. Useful in pastures and lawns.

"WILD WHITE" CLOVER

Of English origin. Compared to White Dutch, it has smaller leaves, stems and flowers. Vast root system. Stands close pasturing. Hardy, long life.

CANADA FIELD PEAS (*Early Green Feed*)

For cattle, sheep, hogs. Growth is rapid, gives green feed when other seedings are just starting. Sow early, with oats. Oats support the vines—make a palatable combination. 1½ bushels each per acre. Drill peas 3" to 3½" deep. Then drill oats 1½" to 2". Pasture when about 1 foot high. Feed gradually to avoid bloating. After cut, new growth appears.

LESPEDEZA ("KOREAN")

Great hay and pasture Legume. Will grow on poor, worn soils, or land too sour to grow clovers. Used in Delaware, Maryland and South. Good soil enricher. An annual, killed by frost. Often reseeds itself. Drought resister. Sow 20-25 lbs. per acre. Inoculate.

LESPEDEZA ("SERICEA")

Lasts several seasons. Taller. Resembles Alfalfa in growth, but hay is more woody. Thrives on poor soils and in dry seasons. Real soil improver. Seed should be inoculated.

SPRING VETCH

Not winter hardy, but often used successfully among spring-sown emergency pastures. Makes good growth.

WINTER (Hairy) VETCH

Excellent for green feed when cut in full bloom, as hay when pods are about half formed, or as green manure. Good on sandy soils, or where Red Clover fails. Usually sown in late summer or early fall. Be sure to inoculate. Plant along with a small amount of wheat or rye.

CRIMSON CLOVER

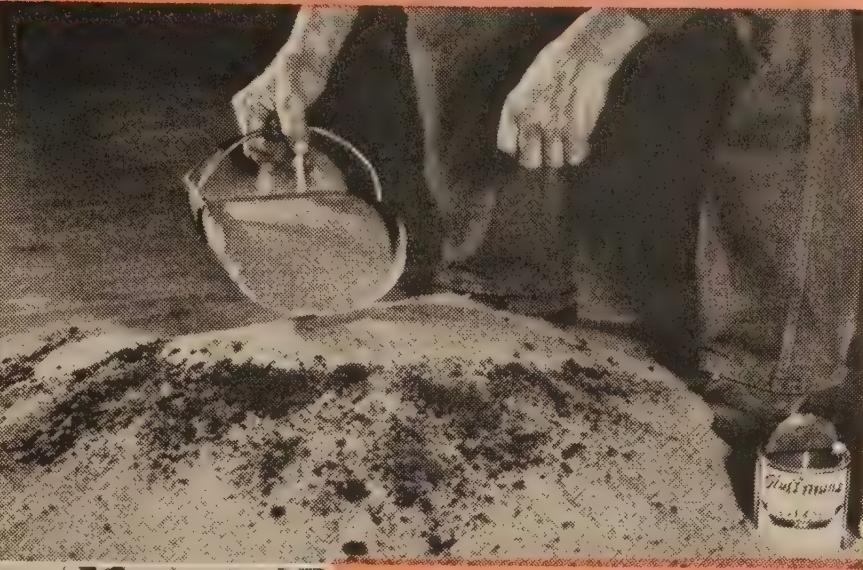
Valuable winter cover. Grows on soil too poor for Red Clover—is not particularly dependent on lime. Used for hay, pasture, or green manure. Useful in corn fields and orchards. Sown 20 pounds per acre, June to late August; matures following June. Inoculate.

COW PEAS

For pasture or hay, turning under or hogging down. Don't plant early, or seed will rot. For hay or green feed, sow 1 bushel with 3 pecks millet, cut when in bloom. Inoculate the seed.

INOCULATE every Legume Seeding

To guess whether or not seed should be inoculated is bad business. Only safe rule is to **ALWAYS** add a fresh culture of effective strains of bacteria. Then



when young plants start growing, the bacteria will be sure to be there to enter the tiny root hairs, and start their good work in the plant's early stage—when it's most important.

Tests have often proved that bacteria in formerly inoculated soils lose part or all effectiveness.

It is good business to use Hoffman Inoculator on each year's legume seeding. It is highly effective. Very low in cost.

Your soil—your crops—you . . . all benefit greatly when you encourage nature's process—namely, her legumes gathering free nitrogen from the air. Your surest guaranty of getting the most nitrogen is to **ALWAYS** inoculate, whether you think there's need for it or not.

Soy Beans . . . for Low-Cost High-Protein Hay, Pasture, Silage

Soybeans play an important part in many a farm-feed program. Valuable for hay. The beans have high-protein content . . . the meal makes an excellent base for mash. May be used with corn silage. Combined with oats, Sudan Grass, millet, or sorghum . . . soys offer a wide variety of nutritious feeds.

"WILSON BLACK" SOYS

Here is the most popular bean of the East for hay purposes. Makes a great growth of slender stems, sometimes 5 feet on good ground, 3 to 4 feet even on poorer soil. Yields of 2 to 4 tons of high-protein hay per acre are common. Its rich growth makes it an excellent pasture variety, too. This variety, Wilson.

INOCULATE SOYBEAN SEED ALWAYS!

Soybean seed should be inoculated every time. In addition to yield benefits, protein content gets higher. Soybeans not inoculated take the nitrogen they need from the soil; but well-inoculated beans can take about 300 pounds of nitrogen per acre from the air, thus increasing soil fertility.

Tests showed inoculation giving increases of $\frac{3}{4}$ ton hay, and almost 12 bu. beans per acre. Your soybean crop will pay much better when Hoffman Inoculator is used. Cost is so low . . . returns great!





Black will mature beans in lower Pennsylvania, Ohio, New Jersey and to the South; has produced up to around 30 bushels per acre in good seasons. Some folks plant in with their corn. The nitrogen produced by inoculated soybeans helps the corn crop, and the resulting ensilage is high in feeding value.

Other varieties have come and gone, but "Wilson's" still lead the field where hay is wanted.

"LINCOLN" SOYS (Yellow)

Developed in Illinois, enjoys wide popularity through the Mid-West, and has rapidly come toward the front in the East. Approved by many authorities. Gained farmer-boosters every year on its performance. Must be given high credit for its fine yield record.

One outstanding quality is the way it stands up. Produces better-quality beans. In tests, often averaged 8 per cent more oil, with a higher iodine number than other beans of same maturity. In some regional tests, "Lincoln" led the field by nearly 6 bushels per acre. Here is fine-quality "Lincoln" seed.

"HAWKEYE" SOYS (Yellow)

A fine, yellow soybean, about a week earlier in maturity than the popular "Lincoln." "Hawkeye" fills the need for a good-standing bean, earliness, and high yields of soybeans indicate its extra yieldability. Its fine success so far will place it permanently on many more farms.

The "Hawkeye" variety was developed in Iowa; its use has been spreading rapidly in Mid-Western soybean country. Seems now like it has a rosy future here in the East, too . . . maybe right on your farm. If you're looking for a good-yielding early bean, give it a trial this year . . . and start right with this splendid quality Hoffman seed. Supply is limited . . . heavy demand expected.



Prepare Now for a Good Supply of Flavor-Full *Sweet Corn*

What an interesting time for the whole family—when there's really good new corn on the table. Plan for it now. Here's the seed to produce it. Fine varieties, selected for top flavor, plus best growing habits. (Days mentioned mean relative maturities under average situations.)

"GOLDEN ROCKET" (Hybrid)

Fine, new, very early, 67 days. 5 to 6 feet. Ears 7 to 7½ inches, 10-12 rows, medium yellow . . . kernels fairly deep, medium wide. Unusually fine quality for such early corn. Much better plant type than most hybrids of such maturity—few suckers. Great early market corn—big future.

"GOLDEN BOUNTY" (Hybrid)

New, improved Golden Cross type to meet the demand for taller plant, higher ear, fewer suckers. Ears borne 8 inches higher, shank longer. About 84 days. 7½ to 8 feet. Vigorous, wilt resistant. Tassels and silks yellow. Ears 9 inches, 12-14 rows. Deep, yellow, medium-wide kernels . . . flavor excellent. Great for home use, market gardeners, canners and freezers . . . really a comer!

"GOLDEN CROSS BANTAM"

Probably the most widely adapted, best-known yellow hybrid. Gains users every year. 85 days maturity. Fine producer. Stalks 6½ to 7 feet tall. Good

ear, 12-14 rows. Strong grower. Yields very well; excellent flavor. Recommended.

"LINCOLN" (Hybrid)

About 83 days. A good, sturdy hybrid. Stalks, 6 feet. Ears, 7 to 8 inches. 12-16 rows. Broad, medium-yellow kernels. Fine table qualities. Resists drought and wilt.

"IOANA" (Hybrid)

Good producer, highly resistant to wilt. 87 days. Tall, broad, dark foliage. Ears light yellow, splendid flavor. Takes adverse conditions well.

"EVERGREEN HYBRID"

90 days. Good, white hybrid, carrying the good traits of regular evergreen types. Ears $7\frac{1}{2}$ to 8 inches, cylindrical, straight rowed, well filled. Good husk cover. Appealing flavor.

"GOLDEN BANTAM"

About 76 days. Best known of old type early corns. Mostly 8 rowed. Kernel wide, medium deep. Cob thin. An old favorite.

"STOWELL'S EVERGREEN"

The good old standby. 100 days. Sugary, pearly white grain. Good size ears, 14 to 18 rows. Popular.

APPROXIMATE NUMBER OF SEEDS IN A POUND

Alfalfa.....	220,000
Alsike Clover.....	700,000
Blue Grass.....	2,200,000
Brome Grass.....	137,000
Ladino Clover.....	680,000
Orchard Grass.....	600,000
Red Clover.....	250,000
Red Top.....	5,000,000
Rye Grass.....	275,000
Soybeans.....	2,000-6,500
Sweet Clover.....	235,000
Timothy.....	1,200,000



FEEDING FOR MORE MILK**

This 5-point more-milk menu might be of value:

1 lb. of hay to each 100 lbs. of live weight.

3 lbs. of silage to every 100 lbs. of live weight.

1 lb. of grain to every 2½ to 3 lbs. of milk produced by each Guernsey or Jersey.

1 lb. of grain to every 3½ to 4 lbs. of milk produced by each Holstein, Shorthorn or Ayrshire; or feed 7 lbs. of grain for each pound of butterfat produced.

WHAT ABOUT "HARD" SEEDS?

They are *LIVE* seeds which don't absorb moisture and sprout within official 5 or 6 days' laboratory test period. They are *NOT BAD* seeds in the sense that they are weak or diseased. They seem to be nature's provision to safeguard the survival of plants, by keeping a reserve of live seeds in the soil. After spring sowing, hard seeds might follow quick sprouters by 2, 3 or more weeks. This could be an advantage where early starting plants were injured by drought or other seasonal condition. They could thus help to thicken thinned stands.

LIME—LEGUMES—INOCULATION

That's a 3-word answer to the always-present problem of best maintaining America's soil fertility.

"DRY-LAND" SEED

Some folks once thought that seed, especially Alfalfa, was harder if it was produced on so-called "dry" land, than if it came from irrigated land. Trials of U. S. D. A. indicate little, if any, difference, results being equal. Pedigree and climate are the important factors in producing seed hardiness.

GRAIN MIXTURES FOR MILK PRODUCTION**

	Daily Amounts		Grain Mixtures		
	Hay (lbs.)	Silage (lbs.)	Corn and Cob Meal* (lbs.)	Ground Oats† (lbs.)	High- Protein Supple- ments (lbs.)
Legume Hay:					
With Silage.....	10-14	30-35	600	300	100
Without Silage ..	16-20	.....	600	300	100
Mixed Hay:					
With Silage.....	10-12	30-35	500	300	200
Without Silage ..	14-18	.....	500	300	200
Non-Legume Hay‡:					
With Silage.....	10-12	30-35	400	250	350
Without Silage ..	14-18	.....	400	250	350
Pasture.....	.....	.....	500	450	50

* Part of this could be replaced by equal weight of ground corn or ground barley.

† Part of this could be replaced by equal weight of wheat bran.

‡ Non-legume hays are Timothy, Sudan Grass, etc. Corn or sorghum fodders and corn stover are of similar feeding value.

** From "Midwest Farm Handbook." Published by Iowa State College Press.

MANURE'S 3-WAY VALUE—GAIN ITS FULL BENEFITS*

High in organic matter . . . plant food . . . growth-promoting substances. The organic matter supplied to soils by manure improves soil-tight, water-holding capacity; aeration; regulates soil temperatures; has beneficial effect on soil micro-organisms. Nearly half of manure's plant food value is in its liquid portion. One ton fresh manure contains about 10 lbs. nitrogen, 5 lbs. phosphoric acid, 10 lbs. potash, important amounts of other elements. Certain organic constituents (hormones) of manure aid plant growth.

Use enough bedding to absorb all liquid. Spread quickly as possible after it is produced—get it into the soil. Adding 50 to 100 lbs. superphosphate per ton (horse, cow or steer) manure, helps conserve nitrogen and balance its plant food content. If storing is necessary, store in covered building or shed and compact it, so air is excluded.

"LIFE OF THE SOIL"—ORGANIC MATTER*

From living and dead plants—roots, green-manuring crops, manure, crop residue, fungi, bacteria, worms and insects—is produced the so-necessary organic content of the soil. It helps bring insoluble soil minerals into solution; improves the soil's physical condition; increases water-holding capacity; improves aeration; regulates soil temperature; provides an important source of nitrogen and other plant food elements. Too bad is the practice of "burning over" land, or burning crop residues. Turning under every possible bit of top growth and manure helps to maintain and replenish the vital organic content of soils.

FEEDING VALUE OF DIFFERENT HAYS

Kind of Hay	Water	Ash	Protein	Crude Fiber	Nitro- gen- Free Ex- tract	Ether Ex- tract (Fat)
Mixed Grasses.....	15.3	5.5	7.4	27.2	42.1	2.5
Timothy.....	13.2	4.4	5.9	29.0	45.0	2.5
Orchard Grass.....	9.9	6.0	8.1	32.4	41.0	2.6
Red Top.....	8.0	5.2	7.9	28.6	47.5	1.9
Kentucky Blue Grass.....	21.2	6.3	7.8	23.0	37.8	3.9
Meadow Fescue.....	20.0	6.8	7.0	25.9	38.4	2.7
Perennial Rye Grass.....	14.0	7.9	10.1	25.4	40.5	2.1
Mixed Grasses and Clovers.....	12.9	5.5	10.1	27.6	41.5	2.6
Barley, cut in milk.....	15.0	4.2	8.8	24.7	44.9	2.4
Oats, cut in milk.....	14.0	5.7	8.9	27.4	41.2	2.8
Red Clover, Medium.....	15.3	6.2	12.3	24.8	38.1	3.3
Red Clover, Mammoth.....	21.2	6.1	10.7	24.5	33.6	3.9
Alsike Clover.....	9.7	8.3	12.8	25.6	40.7	2.9
White Dutch Clover.....	9.7	8.3	15.7	24.1	39.3	2.9
Lespedeza.....	11.0	8.5	13.8	24.0	39.0	3.7
Alfalfa.....	8.4	7.4	14.3	25.0	42.7	2.2
White Sweet Clover.....	22.1	6.5	11.6	24.2	33.2	2.4
Soybean.....	11.8	7.0	14.9	24.2	37.8	4.3
Pea Vine.....	15.0	6.7	13.7	24.7	37.6	2.3
Vetch.....	11.3	7.9	17.0	25.4	36.1	2.3

* From "Our Land and Its Care." Published by American Plant Food Council.



Seed Oats

To Make
Your Crop
Pay Better

"CLINTON ELEVEN" OATS

This improved selection from the original crossings that produced "Clinton" oats has given top performance. Here in "Clinton 11" is more uniform ripening. Less of the green "unfinished" grains at harvest. Less variation in plant height. Improved yield. It makes still more bushels than did the original "Clinton"—also a good producer.

Good Disease-Fighter

An outstanding good point for "Clinton 11" is the way it fights off attacks of disease that used to take heavy tolls in other oat fields. "Clinton 11" was bred to do that job. It has succeeded. Let's hope there will never be a scourge like some years back. But if it should strike again, and your fields have "Clinton 11" in them, you have top-grade crop insurance.

Makes Yields That Pay

"Clinton 11" carries the "good" things needed to produce paying crops. The disease resistance already mentioned. It tills well, producing many

nice-size kernels per head. Stalks grow to good, uniform height. Straw is stiff—keeps standing. Ripens in early to moderate season. Ripens uniformly, without the unripe green-cast grains. Does not shatter—lose its grain early, waiting for harvest. Is classed as a yellow oat. Thin hull. Meaty kernel. Fine feed.

Bred-in Crop Insurance

“Clinton 11” carries the right bloodlines to produce good crops. Any small extra cost over seed of less ability will return “with interest” from its extra yield. Order this fine certified “Clinton 11” seed early. It cannot be replaced when sold.

“CLINTON 59” (Certified) Oats

Two agricultural Experiment Stations—Illinois and Indiana—are greatly responsible for two of today’s main oat varieties . . . “Clinton 11” and “Clinton 59.” From what can be learned, the crosses that produced both strains are just about identical. A different number was applied at each station.

Here is a supply of “Clinton 59.” Finest quality. True strain. Certified. What could be written about it would have to about match the above details on “Clinton 11” . . . there could hardly be any great inherent differences.

Caution: Wise buyers will not be misled by low-price, less-productive seed—offered by either number.

Recommendation: Depend on this Hoffman top-quality, genuine seed . . . either number . . . get top-crop returns!

“MOHAWK” (Certified) Oats

Dependable, good-yielding oats, closely related to “Clinton”—same general characteristics. Developed in New York . . . has done well there and in northern Pennsylvania. Recommended. Resisted leaf blotch and blight, crown and stem rust. Stiff straw . . . can stand until ripe with little risk of going down.

“AJAX” Oats

Heavy yielding, tall straw, average maturing, originated in Canada. Desirable straw stiffness. Has made good crops despite attacks by stem rust, leaf blotch, blight and crown rust. Good yielder in Penn State tests for a number of years. In one New Jersey test, Ajax topped all others by 8.6 bu. more per acre. Should enjoy wider popularity.

New... "Andrew" Oats (Certified)

**Yielded 11.2 bu. per acre more than
the average of its competitors**

Fortunate to offer this variety for the first time. There is not a large supply to be had. Suggest very early orders.

"Andrew" is a Minnesota development. From a cross of Bond × Rainbow. First seed for increase was distributed in 1949. Ability to outyield other strains is always important. Those extra bushels at no extra cost mean *more profit!* Any seed that can help reduce bought-feed bills will be welcome on any well-managed Eastern farm.

In Central-Illinois performance test, "Andrew" oats yielded 11.2 bu. more per acre than the average of all other varieties. In Urbana 3-year test, "Andrew" made 75.2 bu. per acre—its closest rival 71.5.

"Andrew" grows to good height. Stands a little taller than "Clinton 11." Heads out about a week earlier but matures about same time. Has resisted the disease so damaging to many former oat strains, helminthosporium. Also resistant to most races of leaf and crown rust and smut. This Hoffman "Andrew" seed is treated with "Ceresan" to further protect your crop against disease damage.

Urge your trial of this variety. It has been especially well cared for. Is true strain, top quality, Certified. Heartily recommended.



"MOORE" SPRING BARLEY

Excellent new variety. Developed in Wisconsin. Six row, white, smooth awn. Moderately compact head. Has good-length stiff straw that does not lodge easily. Yields very well. Resists spot disease and mildew. Matures about like Wisc. 38. Supply limited.

"WISCONSIN 38" BARLEY

Used with success for years. Grows smooth beards, without sharp barbs. Six row, resistant to stripe disease. Matures in good time. Useful nurse crop. Some stock feeders plant several acres to insure ample home-grown feed, if corn runs low.

"ALPHA" (2-ROW) BARLEY

Good yielding type. Developed at New York station. Popular throughout that state and other Northern areas. Firm straw, nice grain. Hardy.

"HENRY" SPRING WHEAT

Heavy yielder, bred in Wisconsin. Appears most worthy among present strains of spring wheat. Resists attacks of rust. A good flouring type. Adapted to higher altitudes in East. **Buckwheat** (see page 47)

Winter Wheat & Winter Barley

Many hundreds of acres of Hoffman Seed Wheat and Barley went into winter in fine shape. They will have careful observation through harvest, and be ready for your call in August.

**Hoffman Seeds Have
Produced Better-Paying
Crops Since 1899.**

5-STAR

Funk G

The Hybrid Seed Corn Bred to
Give You *Balanced Performance:*



Faster Starting

High germination, rapid growth, vigorous plants—assure a full stand even in cold soils; let you cultivate earlier; help speed your Funk G hybrids to maturity.



Better Disease Resistance

Little loss from down stalks and dropped ears; quality corn at cribbing time—because G hybrids resist ear and stalk diseases that attack non-resistant corns.

Super-Standability

Great strength in stiff, rugged stalks; well distributed and fully developed root systems for good anchorage; resistance to disease and insect damage—mean standing stalks, holding ears for fast, clean husking in spite of severe winds.



Greater Insect Resistance

Funk corn breeders use all possible approaches to get bred-in resistance to insect enemies of corn, including borers, chinch bugs, ear worms and root worms.



More Drought Resistance

Where others may fail, G hybrids survive and make a crop—because of bred-in capacity to extract, conserve and use most effectively the available moisture during long, hot dry spells.



One big reason why Funk G seed has gained so fast is the all-important "Breeding-for-Balance" program back of every one of today's Funk G hybrids.

Proper balance means everything. Takes the gamble out of corn farming. Puts pay-off corn into your crib and silo. Even in the "bad-weather" years.

You've known people with certain traits in their make-up—who just don't get along with other folks. It's the same with corn bloodlines . . . they're often so different. Successful corn breeders must know whether one desirable line will co-operate with the others he wishes to combine with it. Often they just won't. And it's no use putting that one dominant feature into a hybrid, if it throws some of the other good lines out of gear. There must be true balance in corn bloodlines . . . it's all-important!

Plant 5-Star Funk G seed. It's truly balance bred. Know that your corn crop is off to a right start. Know, too, that as still-better seed is produced, you will be first to plant it and get still—

BIGGER YIELDS OF BETTER CORN

READ THE FULL
STORY

in your Hoffman
Funk G Corn Book
for 1951. If you
don't have a copy,
we'll be glad to
send one FREE.



Real Crop BENEFITS That Help Every Corn Grower

Cost You Nothing . . .

Pay You Off in EXTRA CORN!

5-Star FUNK G *the Seed for Balanced Performance*

Here's "Les" Hug, head of Hoffman's Funk G research, with some of his associates, checking results at one of their many corn-proving grounds. Thousands of miles are covered every year in this most thorough effort toward even still better Funk G Hybrids for Eastern farms.



Consider this the same as a man who carries insurance—for the *protection he gets!* The insurance policy he receives covers the details.

Here's a "Policy" for the benefit of corn growers. Its protection is cost free to them. It assures the success of their corn crops.

There is no other such policy by other seed-corn agencies. This Hoffman-Funk policy has been at work 13 years. Covers all vital corn details thoroughly, each year, in each corn area of the Northeast.

Benefits this policy has paid thousands of corn growers have been tremendous. You may as well get them, too—this year. They are automatic when you plant Hoffman-recommended Funk G. You get:

Balanced Breeding—Plus Real PROVING

Funk G progress grew upon the quality of its breeding and its REAL-research program. It never stops. Here is proving that COUNTS! Hoffman patrons get this great benefit. Every year results in a new volume of important hand-gathered records. Collected by earnest trained men. In each corn area. New bloodlines are closely observed alongside present hybrids (including competing brands). Closely watched past early growth, their behavior is checked all through the season. Harvest weights recorded. Moisture content measured. Information, the true facts, gotten this way, really count! It is TRUE research, not just using a good word too often advertised misleadingly. Note these benefits you gain planting Funk G seed:

Root Foundations Are Right

For 30 years, Funk men have worked on corn-root problems. There was as much to learn about corn under the ground as above. Much of today's Funk G success resulted from the outstanding root structures developed.

You Have More Leaf Surface to Manufacture More Corn

The greater the leafiness, the more grain manufacturing takes place all the time. One definite effort in Funk G breeding is to put more square inches of leaf surface to work on each plant.

Your Corn Keeps Ripening on Still-Green Stalks

Here's a tremendous asset in Funk G. Every day leaves stay green, more grain is being made. Funk G hybrids are specialists in this vital feature, bred with the idea—that "Extra bushels are Profit."

Your Stalks Keep Standing

Long before corn borers, there were problems of broken stalks, dropped ears, and stalk rot. These difficulties were being licked years ago by Funk G breeders. Comparing today's various hybrids on this basis, it's most evident Funk G hybrids *do* stand better. They're *bred* for just that!

Your Corn Matures

More folks now get sound corn who couldn't depend on it before they changed to Funk G seed. It's not accidental. They now plant seed that's KNOWN to do *their* job . . . because of the bloodlines bred into it. Northern or high-altitude areas have gained immensely in recent years on this point.

Husking Is a Pleasure With Picker or by Hand

Corn growers have always liked stalks to "stay on their feet" to harvest time. Hands-and-knees husking was never any fun . . . and costly. But now since mechanical pickers came, this requirement is vital. It's bred into Funk G seed. Observers say, too, ears are cleaner husked when hauled from Funk G fields than from fields advertising other names.

Your Ear Bushels Shell Out More Grain

Time and again, as corn is shelled out of government storage for settlement, Funk G crops lead in shelling percentages . . . often by 10 per cent.

QUALITY ENSILAGE . . . Lots of it!

Users' own words (from recent letters) tell the story best—"I get more feed with less storage." "We like Funk G because of the good grain content in its silage. This enables us to feed low on our dairy grain." "Gave nearly twice the tonnage another brand hybrid made." "It's the best silage corn I ever raised in more than 30 years."

More Feed Units Go Into Your Silo (Means Less "Bought Feed" to Pay for)

Exacting dairymen today want to know the answers. Besides exact weight, what's the feeding value? Both figure into feed costs and net profits.

In the ensilage from each Hoffman-recommended Funk G silage strain, there's a very high percentage of actual grain feed to the total green weight . . . more feed units—lower-cost herd upkeep.

Are You SAVING MONEY by Buying Round-Kernel Seed?

More folks are. They realize every grain on a Funk G seed ear, regardless of shape, has exactly the same germ plasm within . . . will produce the same fine ear and grain—just as much corn. Use proper planter plates (which must also be done to plant flat-kernel seed). Price List quotes various kernel types . . . all of *identical* yieldability!

Plant 5-STAR *Funk G...*
Get *Balanced* PERFORMANCE
in YOUR Field Where It *COUNTS*



FUNK G PLANTING GUIDE

Kernel Type	A	B
Large Flat.....	72,688	6.8
Regular Flat.....	81,144	7.6
Small Flat.....	95,088	8.9
Large Round.....	65,296	6.1
Regular Round.....	73,024	6.8
Small Round.....	83,608	7.8

Column A—Approximate kernel count per bushel.

Column B—Approximate number of acres 1 bushel will plant at average spacing.

SILO CAPACITY

Diameter x Depth	Tons	6 Mo. Feed for No. of Cows
10 x 30.....	46	13
10 x 40.....	63	18
10 x 50.....	74	21
12 x 35.....	79	23
12 x 40.....	91	26
12 x 50.....	124	34
14 x 35.....	107	30
14 x 40.....	124	34
16 x 40.....	161	45

HUNGER SIGNS IN PLANTS*

NITROGEN DEFICIENCY: • 1. Sickly yellowish green color • 2. Distinctly slow, dwarfed growth • 3. Drying up or firing of leaves—starting at bottom of plants, proceeding upward. In corn, grains and grasses, firing starts at tips of bottom leaves, proceeds down center or along the midrib.

PHOSPHORUS DEFICIENCY: • 1. Purplish leaves, stems and branches • 2. Slow growth and maturity • 3. Small, slender stalk in case of corn. In small grains, lack of stooling • 4. Low yields of grain, fruit and seed.

POTASH DEFICIENCY: • 1. Mottling, spotting, streaking or curling of leaves, starting on the lower levels • 2. Lower leaves scorched or burned on margins and tips. These dead areas may fall out, leaving ragged edges. In corn, grains and grasses, firing starts at tip of leaf, proceeds down from edge, usually leaving midrib green • 3. Premature loss of leaves • 4. Plants falling down prior to maturity, due to poor root development.

DEFICIENCY OF OTHER ELEMENTS: Strongly farmed soils become low on calcium, sulfur, magnesium and other minerals. Good practice is to keep in close touch with local County Agent who receives releases from headquarters, and will gladly share such information with inquirers.

WHAT ABOUT 2,4-D FOR WEEDS?

Very effective on many weeds, when applied properly at recommended rates. Retreatment sometimes needed. New facts are being learned right along. Suggest you keep in close touch with your state's extension service.

PLANT NUTRIENTS IN ONE TON OF DIFFERENT MANURES*

(Includes solid, liquid and bedding)

Kind of Animal	Nitrogen (N) (lbs.)	Phosphoric Acid (P ₂ O ₅) (lbs.)	Potash (K ₂ O) (lbs.)	Tons Manure Produced per Year per 1,000 Lbs. Live Wt.
Horse.....	13.2	5.1	12.1	12
Cow.....	11.4	3.1	9.9	15
Pig.....	9.9	6.7	9.3	18 ¹ / ₄
Sheep.....	15.8	6.7	18.0	9 ³ / ₄
Steer.....	15.0	6.0	8.0	9
Hen.....	21.0	16.4	10.2	4 ¹ / ₂
Duck.....	11.4	28.8	9.8	.....

* From "Our Land and Its Care." Published by American Plant Food Council.

APPLY ENOUGH LIME—BECAUSE IT:*

Corrects soil acidity.

Supplies calcium and magnesium.

Speeds decay of organic matter and liberation of plant foods.

Increases the availability of applied and residual phosphate.

Increases fixation of nitrogen by soil and plant organisms.

Improves crop yields.

Improves the physical properties of soils.

Reduces the activity of toxic substances in the soil.

HINTS TO FARM BEGINNERS

Use credit carefully. Be sure borrowed money goes into something that will repay itself. Don't pay excessive interest rates. Plan toward a definite goal. Ask the county extension service for outlook help. Keep careful records. Set up a long-time program, yet keep it flexible enough to adjust with general conditions.

CORN CRIB CAPACITY

Ear corn of good quality, measured when settled, will hold out at $2\frac{1}{2}$ cubic feet to the bushel. So, multiply the length by the width by the depth of grain (all in feet). Multiply this sum by 2 and divide by 5. Result: bushels of husked ear corn, 70 pounds per bushel.

ONE ACRE OF GOOD PASTURE

What's it worth to a good farm? Records show it can produce 2,000 pounds of digestible nutrients—which is equal to:

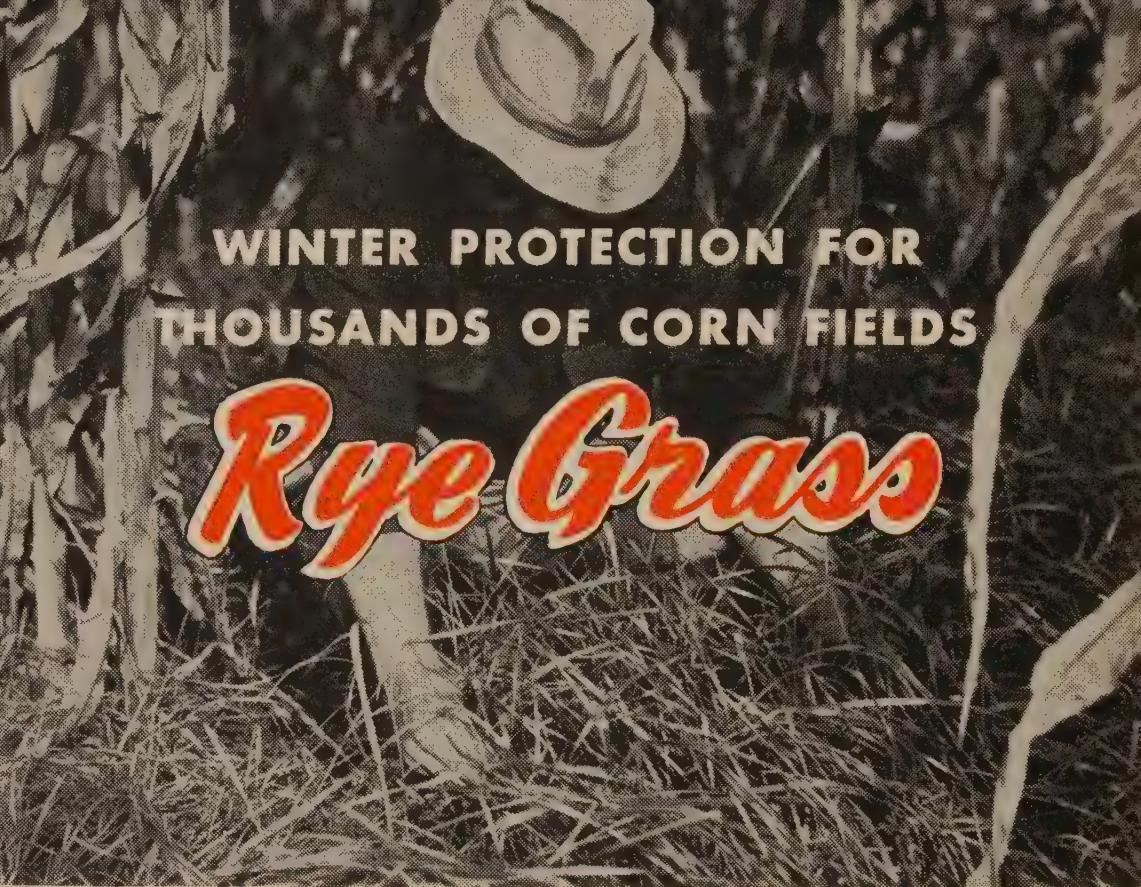
44 bushels shelled corn, or
88 bushels of ear corn, or
90 bushels of oats, or
42 bushels of wheat, or
2 tons of excellent hay.

PLANT FOODS REMOVED BY CROPS*

(In approximate pounds per acre)

	Acre Yield	Nitrogen	Phosphoric Acid	Potash	Calcium	Sulfur	Magnesia
GRAIN CROPS							
Barley (grain)....	30 bu.	27	12	12	2	2	3
Barley (straw)....	0.8 ton	9	3	19	7	4	2
Corn (ear).....	60 bu.	57	24	20	1	5	5
Corn (stover)....	2 tons	36	16	46	23	6	5
Oats (grain)....	50 bu.	32	13	9	3	3	3
Oats (straw)....	1 ton	12	4	30	10	4	3
Rye (grain)....	30 bu.	32	12	10	1	1	9
Soybeans (grain)...	20 bu.	70	16	30	3	5	5
Wheat (grain)....	25 bu.	28	13	8	1	2	3
Wheat (straw)....	1 ton	10	3	15	6	4	2
HAY CROPS							
Alfalfa Hay.....	4 tons	180	43	178	207	19	49
Blue Grass Hay....	1 ton	27	11	42	10	8	10
Clover Hay.....	2 tons	82	16	65	79	9	18
Soybean Hay.....	2 tons	102	27	44	44	5	33
Timothy Hay.....	1½ tons	30	9	41	19	5	5
ANIMAL PRODUCTS							
1,000 lbs. of milk takes off the farm.....		5.6	2.2	1.8	1.7	...	...
1,000 lbs. (live) of beef takes off the farm.....		27.0	16.9	2.3	18.6	...	...

* From "Our Land and Its Care." Published by American Plant Food Council.



**WINTER PROTECTION FOR
THOUSANDS OF CORN FIELDS**

Rye Grass

No corn field should be without the protection of a good cover of Rye Grass. Order enough for your corn acreage . . . 20 to 24 pounds per acre, usually sown at last normal cultivation. To make a good winter coat for the soil. Helps discourage weeds. Goes a long way to stop the topsoil washing away. One man reported he saved 7 tons of good topsoil by a 40-lb. seeding. Adds much valuable humus when turned under. Early spring plowing gives best results. Valuable as extra fall and spring pasture.

GREAT SOIL SAVER

Rye Grass certainly helps conserve and condition millions of tons of precious soil for the Northeast. Provides a ground cover to take the impact of rain drops. With its mass of valuable top growth, its many long leaves, plus its wonderful fibrous root system, adds organic matter to soils equal that in many tons of manure. Improves soil permeability, so rain is absorbed, not shed. Is truly the effective cover. And really a versatile crop, too . . . following are some of its major uses . . . put it to use wherever possible in your farming program.

SPLENDID on POTATO GROUND

Spring discing last year's potato fields and sowing 6 pecks Oats, 10 pounds Rye Grass, 10 pounds Red

Clover, gives good results. The Rye Grass comes fast. After oats is combined, the clover competes with the Rye Grass in the warmer period. Next spring is a heavy organic turn under for potatoes.

FOR PASTURE IMPROVEMENT

Ten pounds Rye Grass and 2 pounds Ladino per acre has been helpful in "doctoring up" old pastures. After adequate liming and proper fertilizing. Used widely as a nurse grass in pasture mixtures.

MORE ORCHARDS Get RYE GRASS

This use for Rye Grass is growing more each year. In New Jersey, a mixture of Rye Grass and Vetch is sometimes used. Many folks sow in the orchard to gain extra pasture in the spring, then disc under to feed tree roots.

HELPFUL in GARDENS

Sow after early vegetable crops. Disc or harrow the ground shallow. Broadcast 20 to 25 pounds Hoffman Rye Grass per acre. Some folks seed between rows of late vegetables at last cultivation.

MAKES GOOD EXTRA PASTURE

After a good growth of Rye Grass has been attained, pasturing by livestock will not hurt its cover-crop value. It makes fine forage for pigs and other animals, but supplementary protein must be supplied in the grain ration. In one test, pigs pastured on Rye Grass gained 1.14 pounds daily when full-fed a 12 per cent protein ration (corn, 87.5 pounds; tankage, 6 pounds; soybean oil meal, 6 lbs.; salt, $\frac{1}{2}$ lb.).

TOP QUALITY SEED for TOP RESULTS

Hoffman Rye Grass is cleaned and recleaned to top degree of purity. Strong sound growth. Finest on the market. Weeds don't make good cover crops . . . clean, vigorous Hoffman Rye Grass helps crowd them out. Repays its low cost many times over.

COVER CROPS WORK IN WINTER

They use up nitrogen made or freed from the soil during winter. They keep the soil alive; it does not freeze so quickly or deeply as bare ground . . . earthworms can work nearer to the surface. The ground can soak up more of the melting snow and rainfall. All this in addition to erosion protection and increased organic matter.

WHY USE PASTURE MIXTURES?

The various hazards to seedlings do not affect all crops equally. Few fields have uniform soil conditions all over. Acid and poorly drained spots may affect certain ingredients, not others. Legume and grass mixtures are preferable to either singly. Legumes supply nitrogen that helps the other grasses yield better and, too, contain more protein. The Legume-grass mixtures reduce erosion better than pure Legume stands. They also resist the advance of weeds better. Grasses in the mixture protect Legumes from heaving on certain soils. May also reduce bloating danger as pastured.

CROP ROTATION HELPS TO:

- Insure against total crop loss in any one year.
- Make maximum use of Legume and sod crops.
- Utilize farm labor more efficiently.
- Replenish organic matter.
- Supply additional nitrogen by using Legumes.
- Reduce soil loss by erosion.
- Increase utilization of native soil fertility.
- Reduce plant diseases, insects and weeds.
- Make fertilizer and lime more effective.
- Improve physical condition of the soil.

GRASS ENSILAGE‡

	To Be Cut
Timothy and other grasses	Pre-bloom stage
Alfalfa—first cutting	1/4-bloom stage
second cutting	Full-bloom stage
third cutting	Full-bloom stage
Clovers	Bloom stage
Soybeans	Full-pod stage
Cereals other than Corn	Dough stage

Average moisture content at above stages (not wet with dew) runs 72 to 75 per cent. Two hours sunshine between mowing and loading reduces moisture content to between 65 and 70 per cent. This means very little seepage loss. Excessive wilting destroys much of the essential carotene, and the silage does not pack well to exclude the air, thus encouraging excessive mold growth.

PRESERVATIVES IN GRASS SILAGE‡

Crop	Apply per Ton Green Weight	
	Molasses* (Gallons)	Phosphoric Acid† (Pounds)
Cereals	$3\frac{1}{2}$	16
Cereals and Legumes	5	20
Grasses and Legumes	5	20
Legumes	$7 \text{ to } 8\frac{1}{2}$	24

* Normally, no dilution with water. In cold weather, not more than 1 gallon water to 4 gallons molasses.

† Dilute acid with twice the volume of water, for best distribution. Feed phosphoric-acid silage with a Legume hay, or feed 2 ounces limestone per cow daily.

‡ From pamphlet of National Association of Silo Manufacturers.

The right seed mixtures, plus enough lime and proper fertilizer, are vital to successful stands. Space allows only these few suggestions. Your local Extension man or your own State Department may suggest others—to better suit your special needs.

PASTURE AND HAY FORMULAS

PENNSYLVANIA—Circular 338 suggests these tables of pasture mixtures as suitable combinations and amounts when spring sown on winter grain. All grass seed, except Orchard Grass, is best sown in the fall. If sown with spring grain on a loose seed bed, the amount of both grass and clover seed may be increased 25 per cent.

	Kentucky Blue	Timothy	Red Top	Orchard Grass	Red Clover	Alsike Clover	Ladino Clover
For Permanent Pasture which may get minimum care and management:							
(1) For good conditions, fertile, well-drained soil.....	8	4	2	..	4	2	1
(2) For low, moist conditions....	6	4	2	4	2	2	1
(3) For poor, dry conditions.....	4	4	2	4	4	..	1
For Pasture, Silage or Hay, "supplementary pasture":							
<i>Basic Mixture (use for all conditions plus additions listed below.)</i>.....	..	4	..	..	2	1	1

(a) To the basic mixture add one of the following grasses depending on the conditions indicated:

- (1) For maximum production of July and August pasture except on poorly drained areas—4 pounds Orchard Grass.
- (2) Only under fertile conditions—8 pounds Brome Grass.
- (3) On poorly drained areas—6 pounds Meadow Fescue.

(b) For fertile, well-drained conditions, also add to the basic mixture—6 pounds Alfalfa.

NEW JERSEY—Leaflet 25 suggests the following pasture formulas:

- (1) For productive, well-drained soils—Ladino Clover 1 pound, and Alfalfa 5 or Red Clover 3, together with Orchard Grass 6 or Brome Grass 10 pounds.
- (2) For poorly drained soils—Ladino Clover 1 pound, Alsike Clover 3, Reed Canary 8, and Timothy 2 pounds for summer or fall sowing and 4 for spring.
- (3) For sandy or shaly soils—Ladino Clover 1 pound, Red Clover 5, Orchard Grass 6, and Timothy 4 pounds for spring sowing or 2 for summer or fall.

CORNELL'S latest recommendation on Birdsfoot Trefoil is as follows: For hay, silage, or pasture, a seeding of 5 pounds Birdsfoot Trefoil with 5 pounds Timothy or 8 pounds Brome Grass per acre. (Birdsfoot seed should be inoculated.) Useful on fair to poorly drained soils for long-lived stands, and on well-drained to droughty soils difficult to plow or highly erosive.

OHIO—Bulletin 261 suggests that on the very richest soils, an excellent hay-rotation pasture combination is 10 pounds Alfalfa with 5 to 10 pounds Brome Grass. On soils not so well adapted to Alfalfa—3 pounds Red Clover, 7 pounds Alfalfa, and 5 to 10 pounds Brome Grass can be used. On seedings intended primarily for permanent pasture—3 to 5 pounds of Kentucky Blue Grass plus $\frac{1}{2}$ to 1 pound each of Ladino and White Dutch Clovers may be added.

Good Pasture

Good pasture provides feed high in important minerals, vitamins, proteins and carbohydrates . . . at lowest cost.



Properly managed, good pasture is the least expensive source of good dairy feed. Every acre should produce maximum grazing. The high-quality pasture seed here listed will provide the foundation for clean, heavy-producing pastures . . . help increase milk checks, livestock weight and poultry profits.

HIGHLAND PERMANENT PASTURE

Popular heavy-producing blend, based on long experience. Widely used. Made up of quality grasses in proper proportions to produce heavy, lasting stands on well-drained, hilly or rolling land. Contains Blue Grass, Red Top, Orchard, Timothy, Ladino, proper amounts of other clovers, Fescues, Rye Grass. Sow spring or fall, 25 to 32 pounds per acre.

LOWLAND PERMANENT PASTURE

A special blend adapted for low, wet places. Includes increased portions of Alsike. Herd's Grass—other seeds that thrive in low areas. High quality.

KENTUCKY BLUE GRASS

Leading pasture grass for good soils. Perhaps the hardest of perennials. Prefers sweet soil; responds quickly to phosphate and lime. Growth rarely exceeds 2 feet. Sow 25 to 30 pounds per acre. Is a slow grower; best sown with quicker-growing seeds. These take hold and are replaced by the Kentucky Blue to form a tough, permanent sod. Fine on sharp slopes and limestone valleys.

ORCHARD GRASS

Because Orchard is highly useful with Ladino for grazing, it has won the admiration of many folks. Will grow almost anywhere except on poorly drained land. One of the best grasses for poor, dry soils.

A heavy producer. Makes palatable, leafy growth in early spring and late fall; probably will make more growth during hot, dry summer months than any other permanent grass. If mowed or kept grazed down early in the season, will not become coarse and unpalatable. First growth is often cut for hay or grass silage. Makes excellent pasture later.

Four to 7 pounds Orchard, with 1 pound Ladino, is a good basis for a pasture formula. A few pounds of Red or Alsike Clover and Timothy could help fill in during the first year. On good soil, Alfalfa is often included to advantage. Sowing too much Orchard could crowd the clover. As an intensively grazed or supplement pasture for July and August, Orchard-Ladino is about unbeatable.

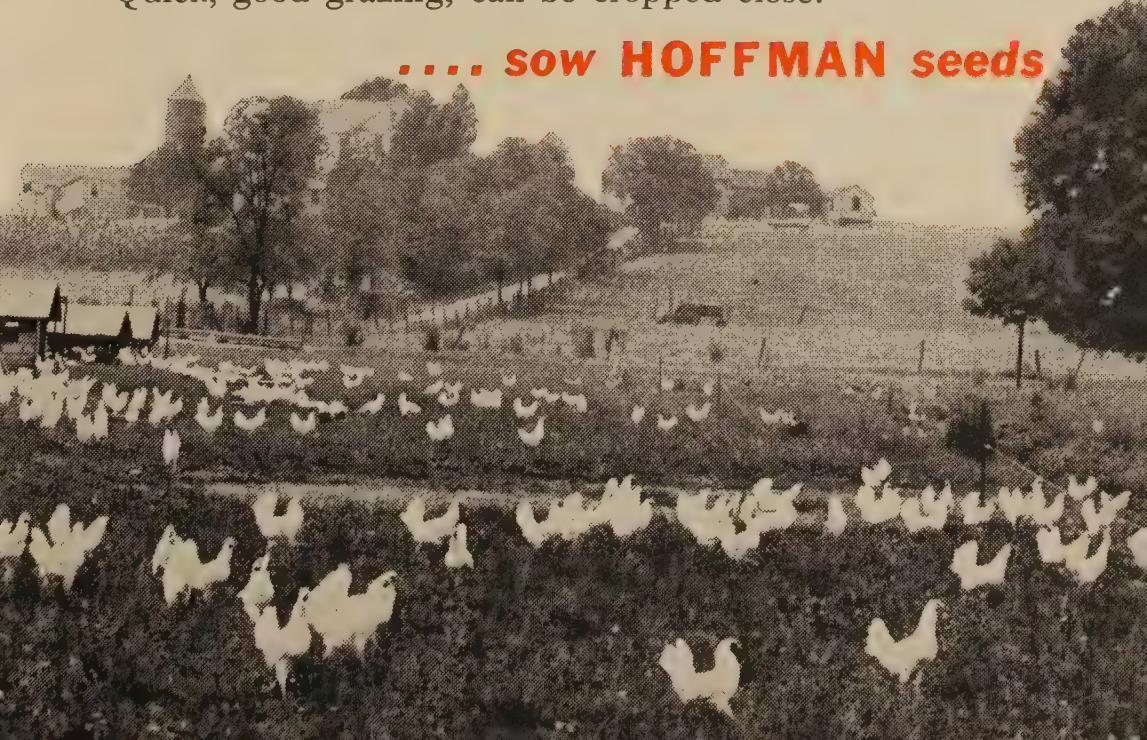
MEADOW FESCUE

Very much at home in low, wet situations. Sometimes used with Ladino on wet land. Starts early in spring; stays green late into fall. Root system is deep; stands drought well. Palatable. Useful in pasture mixtures. Makes good quality hay.

PERENNIAL RYE GRASS

Good in pasture mixtures on fertile, moist soils. Establishes quickly and makes a growth in a short time. Later is crowded out by the other grasses. Quick, good grazing; can be cropped close.

.... sow HOFFMAN seeds



"LINCOLN" BROME GRASS

A tall, leafy, vigorous, deep-rooted, palatable grass. Hardy, long lived. Much slower than Timothy to get established. Becomes productive the second year. Spreads by underground rootstocks. Needs abundant nitrogen, best obtained by growing with Legumes. Yields on poor acid soils are poor. Makes a fine mixture with Alfalfa, valuable for hay or pasture, or both. First crop may be cut for hay—the second growth pastured.

Usual seeding is about 10 pounds Alfalfa and 8 to 10 pounds Brome. Red Clover and Timothy are sometimes added for heavier first-year growth. Sown with Ladino for pasture; around 10 pounds Brome, 1 pound Ladino. Will not tolerate heavy close grazing, but is excellent pasture if grazing is controlled.

Use only adapted seed—"Lincoln" or other similar southern-grown strain. . . . The northern-grown seed (often lower priced) doesn't do well here.

HOW TO SOW: Don't mix Brome with other seeds. Sow it separately; its large size will choke seeder. Some mix Brome seed with fertilizer in the grain drill. Some mix the Brome with wheat, barley, or oats, and sow through the grain compartment—stir often to keep the seeds well mixed. On many small areas, the seed is broadcast by hand. Shallow sowing is important; not over $\frac{1}{2}$ inch deep, $\frac{1}{4}$ inch is better. Cultipacking after sowing firms soil; gives seed a better start.

RED TOP (Herd's Grass)

One of the surest grasses to catch. Grows under most any soil condition, wet or dry, rich or poor, sweet or sour. Palatability is low, hence is used chiefly in mixtures with other grasses. Is vigorous, drought resisting, makes a coarse, loose turf.

TALL MEADOW OAT GRASS

Has been used with Ladino for pasture; stands up well. Not too leafy. Does not survive long under close grazing. Has wonderful ability to make crops on poor, dry, sandy land. Its seed won't mix well with others—must be sown separately.

CREEPING RED FESCUE

Mainly useful in lawns; adapted to dry and shady places. Unpalatable as pasture. CHEWINGS is another Fescue for lawns and athletic fields.

REED CANARY GRASS

The main advantage of Reed Canary is its ability to grow in very wet places, even in standing water and when flooded for some time. Has succeeded on dry land; however, dry-land grasses are better there. Helps convert swampy ground into worthwhile grazing, sometimes with a hay crop besides. One user found success with 8 pounds Reed Canary and 1 pound Ladino on heavy, wet sand loam. Perennial, stems spread underground, makes tough sod.

"ALTA" (Tall) FESCUE

Has become widely known in recent years. Taller growing, producing a heavier and somewhat coarser growth than Meadow Fescue. Resistant to rusts. Grows vigorously under wet or dry conditions. Stays green late in fall, but sometimes turns yellow in mid-summer. Stands up under hard usage; valuable on airports and athletic fields. Not as palatable to livestock as some grasses, but its vigorous growth recommends its use in many pasture formulas.

CANADA BLUE GRASS

Useful mainly on land too poor and dry for Kentucky Blue. Forms thin sods; not a heavy producer. Included in many poor-land mixtures.

SPECIAL-PURPOSE MIXTURES

Nowadays, many folks want special pasture mixtures for specialized uses in their pasture programs. Hoffman facilities include modern seed-mixing machinery . . . we will be glad to "make to order" any special formula that suits your purposes best. Nothing but clean, sound-growing seed will be used.



CHARACTERISTICS OF IMPORTANT PASTURE PLANTS

	Life of Stand	Ready to Graze in Spring	Recovery From Cuttings or Grazing	Drought Tolerance
Alfalfa	*Medium to long	Late (early grazing kills Alfalfa)	Rapid	*Excellent
Ladino Clover	*Medium to long	*Very early	*Very rapid	Fair to good
Birdsfoot Trefoil	*Very long	2 to 3 weeks later than Ladino	Medium	*Good
Brome Grass	Long	Early	*Rapid	*Good for grass
Orchard Grass	Long	*Very early	*Very rapid	*Good for grass
Timothy	Long	Medium	Slow	Fair for grass
Red Clover	Short	Medium early	Rapid	Good

* Points marked are the ones that make the plant most useful for pasture mixtures.

Source: *Good Pasture*, Agricultural Extension Bulletin No. 4, New York State College of Agriculture.

WEED FACTS . . . SAD BUT TRUE

1 1/2 tons of weed seeds are estimated to be in 1 acre of soil on an average farm.

U. S. D. A. planted 107 species of weed seeds: 71 grew after 1 year and 51 grew after 21 years.

Noxious weeds cause 12 times the annual loss caused by insects, and 3 times the loss due to plant diseases.

In Michigan, an experiment revealed curled dock germinating 52% after 50 years, evening primrose 38%, mullein 62%. Most common weeds are long lived. It takes continuous hard work to keep them back.

North America has over 500 species of weeds, known by about 2,000 local "aliases."

Why take any crop chances by sowing weeds? Investing in weed-free, top-quality seed is just plain good business. Depend on Hoffman-Quality seed!

COMPARISON: GREEN AND STABLE MANURE

One ton green manure (cured weight basis) adds to the soil nearly as much organic matter as contained in 4 tons stable manure.

	Organic Matter	Nitrogen
4 tons Manure	2,000 lbs.	40 lbs.
1 ton Red Clover	1,700 lbs.	40 lbs.
1 ton Sweet Clover	1,700 lbs.	60 to 80 lbs.
1 ton Rye	1,700 lbs.	35 lbs.

In leguminous green manure, nitrogen added is taken from the air; with rye and other non-legumes, the nitrogen is taken from the soil.

Sudan Grass

. . . DURING HOT SUMMERS, OFTEN A "LIFESAVER" CROP TO DAIRYMEN

Sudan pasture has often paid *big* dividends! Uneven growth of regular pastures poses a real problem some years. Due to getting heavy during spring and early summer, slow and danger of over-grazing during the hot, dry summer months, then a pick-up in growth again in the fall. A small acreage of Sudan coming along just when regular pastures are least productive has been a lifesaver to many dairymen . . . splendidly maintaining high-level milk production during July and August. Divide Sudan pasture—using one portion while the others are given a chance to grow.

"SWEET" SUDAN

In several tests, when planted alongside regular Sudan, cows ate the Sweet Sudan first. Seems to have definite disease resistance. Because later than regular Sudan, it provides more vegetative growth and remains green and growing longer. Has broader, attractive leaves. Grows heavier, tall stalks. Has gained considerable popularity . . . the best evidence that it must be doing a good job.

SUDAN "Regular Type"

Valuable for dairy herds in a dry spell when green pastures are needed quickly. Useful for quick hay. Sometimes used for silage. Sow 30 to 40 pounds per acre. Often ready to cut in 50 to 70 days—ready to recut in another 50 days. Straight Sudan hay has almost equal value to Timothy. Very leafy; 5 feet tall, heavy stouter; stands well.

Some sow winter rye in the fall, pasture it until April, then sow Sudan on same ground for full-year pasture. Sown from corn-planting time to August. Very dangerous to feed Sudan after frosted!

* * *

Sudan is seeded with grain drill set for 2 to 3½ pecks on the wheat side. 200 to 300 pounds of 0-14-7 or 2-12-6 will help growth. Do not graze until 14 inches tall . . . usually in about 5 weeks.

Some mix Sudan and soybeans for green feed; 1 bushel soys, 12 to 15 pounds Sudan. Sudan seed may be mixed with fertilizer to save one operation.

Forage Crops to "Fill in"

... for One-Season Stands

SUDAN GRASS (See page 45)

RAPE—for QUICK PASTURE

For sheep and hogs. Inexpensive, prolific. Thrives on all soils with little preparation. Sow 5 to 6 pounds per acre, through spring up to end of August. Alone, with other pasture seeds, or in corn fields. Makes second growth. Pasture when less than 10 inches high. Stands hard usage.

Canada Field Peas (for Green Feed)

For very early planting. A fast-starting Legume. Excellent feed to cut and carry to cattle (page 16).

Spring Vetch

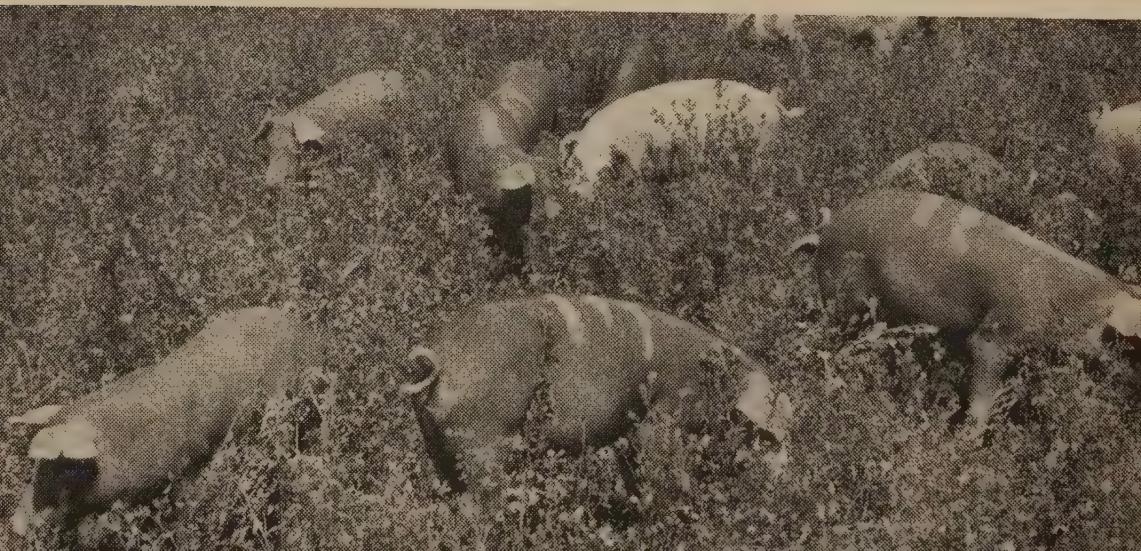
Another Legume for production of forage. Used mostly in combination with other seedings (page 16).

COW HORN TURNIP

Improves soil, provides forage. Sometimes used in corn fields. Tops relished by sheep, hogs, poultry. Sow 2 to 4 pounds per acre.

"HOG PASTURE MIXTURE"

Provides 8 to 11 weeks' use at low cost. Quick green feed—often ready in 4 weeks. Useful after other crop failures. Grows until frost; won't winter. Producer of flesh, fat, wool. For cattle, cut and remove to prevent trampling. Gets second growth. Use 70 pounds per acre, broadcast or with seeder, between June and August 1. Harrow in.



BUCKWHEAT

Yield is good, even on thin soils. Does well on fallow land. Can be seeded all of June and first half of July. A quick, sure emergency crop in fields where a bad spring ruins other earlier seedings. Some folks use buckwheat to choke out weeds. To tame wild land—idle ground—sow buckwheat. 200 lbs. super-phosphate may up yield by 5 to 8 bu.

Buckwheat often helps solve feed shortages. Makes good flour. The middlings have good protein content.

"JAP" MILLET—for Quick Hay

Most popular millet in Northern-Central areas. Has made tremendous yields—up to 20 tons per acre. Tall variety. Thrives on poor soil. Valuable emergency hay. For green feeding, cut just before seed heads appear. Sow $\frac{1}{2}$ bushel per acre.

"GOLDEN" MILLET

Makes satisfactory leafy hay; in Pennsylvania, yields good crops in from 7 to 9 weeks. Sow 3 pecks per acre (48 lbs. per bushel). "HUNGARIAN" Millet is used by folks in more Northern areas.

SORGHUM

Valuable for cattle feed as green forage or ensilage. Sometimes used along with soybeans to make fine silage. Unthreshed heads fed whole or ground—or threshed, and grain fed. Analysis of grain similar to corn. See Price List.

"ATLAS" SORGO

Combines the desired qualities of a sweet forage sorghum with strong stalks . . . seeds may be used as a grain feed. Out-produces grain sorghum in forage, except when very dry.

Plants are about $\frac{1}{2}$ inch thick. Grow 7 to 10 feet high. Harvest when the seeds are in the hard-dough stage with field ensilage cutter or corn-row binder. Unless dry, seed shallow. Plant with corn planter, using the smallest plates.

ONLY HALF INSURED?

Don't be guilty—be safe! Today's replacement costs are terrific. Carry ENOUGH insurance; on buildings and contents. Pay a reliable estimator to let you KNOW replacement costs. They'll shock you. But learn them before a fire! And get covered today!

WISE THINKING

"Many fields are seeded as few as 6 to 8 times during the life of one farm operator. The choice of an adapted seeding mixture with adequate lime and fertilizer for each rotation is vital to the lifetime success of the farm operator." (Cornell.)

TREATMENTS TO HELP REDUCE CROP LOSSES FROM DISEASE

"SEMESAN BEL" Treatment Increases Potato Yields

Disease in soils can affect the best seed potatoes and cut yields. "Semesan Bel" offers easy, low-cost control of Rhizoctonia, scab, and other soil-borne diseases. Practical applications show an average yield increase of about 10%. Quick-dip and plant. 1 lb. treats 60 bu. Cost: 1-lb. can \$2.00; 2-oz. can 50¢.

"CERESAN" for Barley, Wheat, Oats

Controls organisms that cause decay and blights. Effective on some smuts, many other diseases. Best known chemical helper to raise grain yields . . . from even supposed-to-be disease-free seed. Low cost. 1 lb. treats 32 bu. seed grain. 1-lb. can \$1.15; 4-lb. can \$3.90; 4-oz. can 45¢.

"ARASAN" for Corn, Grasses, Legumes

Reduces losses from seed decay and damping-off. Two-way action—as a disinfectant, destroys many surface seed-borne organisms; as a protectant against seed decay. More details (prices) page 7.

MINERALS FOR HOGS ON PASTURE*

20 lbs. iodized salt, 40 lbs. finely ground limestone, 40 lbs. steamed bonemeal. On dry lot or winter feeding or on poor pasture, 3.5 lbs. of trace-mineral pre-mix should be added to above. Its cost might vary from 7¢ to 12¢ a pound. Such a pre-mix might contain: 1.3 lbs. ferrous sulfate, 1 lb. magnesium carbonate, .20 lb. potassium carbonate, .20 lb. copper carbonate, .60 lb. manganese sulfate, .10 lb. cobalt chloride, .05 lb. zinc carbonate.

WEED PLANTS ARE REAL CROPPERS

Amazing number of seeds produced annually by one average plant:

Barnyard Grass.....	7,160	Penny Cress.....	7,040
Canada Thistle.....	680	Rough Pigweed.....	117,400
Common Plantain.....	36,150	Sour Dock.....	29,500
Crabgrass.....	200,000	Sow Thistle.....	9,750
Evening Primrose.....	118,500	Stinging Nettle.....	26,600
Giant Ragweed.....	1,650	Stink Grass.....	82,100
Green Foxtail.....	34,000	Wild Mustard.....	2,700
Lamb's Quarter.....	72,450	Witch Grass.....	11,400

* From "Midwest Farm Handbook." Published by Iowa State College Press.



Seed Potatoes

"IRISH COBBLER"

Old reliable type. Early, heavy yielding. Delicious, mealy. Shallow eyes. Stores well. No other potato is used on as many farms . . . makes good yields of good potatoes. Finest Maine-grown seed.

"KATAHDIN"

Fine yielder, gaining in favor. Very mealy. Oval shaped, smooth, shallow eyes. Vines dark green—thick, heavy foliage. Matures a little before "Green Mountain." The main crop variety on many farms.

"GREEN MOUNTAIN"

A late variety; good eating qualities, sound keeper. Always among the best-liked standard varieties. Keeps right up with the leaders.

"SEBAGO"

Late, blight resistant. If sprayed, will continue to grow until frost, consequently greater yield. Many report Sebago living through drought to make good crops after late rains.

"RUSSET"

Seed produced by famous Tuber-Unit method that removes anything undesirable. A hardy grower, easy to harvest, good keeper, resistant to many diseases. Produces heavy yields. All this year's Russet seed was grown in Michigan.



IS THIS A GOOD RULE?

To increase the farm's acreage of "cash" crops after a year of low prices; decrease it after a year of high prices.

INDEX AND SEEDING INFORMATION

Page	Seed	Pounds in One Bushel	Sow Per Acre (Lbs.)	Depth (Inches)	Time to Sow
4	Alfalfa.....	60	15-20*	1/2-1	Feb.-April
			2-5†		Aug.-Sept.
9	Alsiike Clover.....	60	6-9*	1/2-1	Feb.-April
			2-4†		Aug.-Sept.
11	Alsiike and Timothy Mixture.....	45	8-12	1/2-1	Feb.-April
47	Atlas Sorgo.....	50	45-60*	1-1 1/2	May-June
27	Barley (Spring).....	48	84-108	1-1 1/2	April-May
15	Birdsfoot Trefoil.....	60	5-7*	1/2-1	Feb.-April
			1-3†		Aug.-Sept.
40	Blue Grass.....	14	25-40*	1/2	March-May
			3-6†		Sept.-Oct.
42	Brome Grass.....	14	15-20*	1/2	Feb.-April
			2-6†		Aug.-Sept.
47	Buckwheat.....	48	48-60	1-1 1/2	May-July
46	Canada Peas.....	60	90-120	2-4	April-May
28	Corn (Hybrid)‡				
20	Corn (Sweet).....	46	8-9	1-2	May-June
16	Crimson Clover.....	60	15-20	1/2-1	March-April
					July-Sept.
11	"Economical Mixture".....	56	12-20	1/2-1	Feb.-April
43	Fescue (Alta).....	24	14-18*	1/2-1	March-May
			2-12†		Sept.-Oct.
41	Fescue (Meadow)....	24	20-30*	1/2	March-May
			2-6†		Sept.-Oct.
46	Hog Pasture Mixture	50	50-70	1-1 1/2	May-July
12	Ladino Clover.....	60	1-4*	1/2-1	March-May
			1 1/2-2†		Sept.-Oct.
16	Lespedeza (Korean)....	40	20-25*	1/2-1	Feb.-April
			6-12†		
10	Mammoth Clover....	60	8-12*	1/2-1	Feb.-April
			2-4†		
47	Millet (Japanese)....	35	25-40	1/2-1	Aug.-Sept.
24	Oats (Spring).....	32	72-96	1-1 1/2	May-July
41	Orchard Grass.....	14	15-25*	1/2	March-May
			2-6†		Feb.-April
					Aug.-Sept.
40	Permanent Pasture Mixture.....	32	25-32	1/2	March-May
					Sept.-Oct.
46	Rape.....	50	5-8	1/2-1 1/2	April-Sept.
8	Red Clover.....	60	8-12*	1/2-1	Feb.-April
			2-4†		Aug.-Sept.
42	Red Top.....	32	8-12*	1/2	March-May
			2-4†		Sept.-Oct.
43	Reed Canary	30	8-12*	1/2	Feb.-April
			2-4†		Aug.-Sept.
36	Rye Grass.....	24	20-25*	1/2	March-June
			4-6†		Aug.-Oct.
47	Sorghum.....	50	50-65*	1-1 1/2	May-July
18	Soybeans.....	60	90-120*	1-2	May-July
45	Sudan Grass.....	40	25-40*	1/2-1	May-July
10	Sweet Clover.....	60	15-20*	1/2-1	Feb.-April
			2-6†		July-Sept.
42	Tall Meadow Oats...	14	20-30*	1/2	March-May
			2-6†		Sept.-Oct.
11	Timothy.....	45	10-12*	1/2	Feb.-May
			2-6†		Aug.-Oct.
16	Vetch (Winter).....	60	30-45*	1-2	Aug.-Oct.
			15-25†		
27	Wheat (Spring).....	60	90-120	1-1 1/2	April-May

* Alone. † In Mixtures.

‡ See Planting Guide on page 34.

SEED TREATMENTS: Arasan, page 7; Ceresan, page 48; Legume Inoculants, page 7; Semesan Bel, page 48.

The Privilege of Supplying Your Seeds Will Surely Be Appreciated!

"MONEY-BACK" Terms

Hoffman seeds must be satisfactory to you on arrival. You be the judge. If they aren't, return them at once. Your money will be refunded. Time for tests granted.

ASSURANCE of QUALITY

Every care is taken to provide only good-quality seeds. All sales are on this basis as approved by the American Seed Trade Association, for its members. "A. H. Hoffman, Inc., warrants to the extent of the purchase price, that seeds sold are as described on the container within reasonable tolerances. Seller gives no other or further warranty, express or implied." If seeds are not accepted on these terms, return at once. Hoffman Seeds will pay you!

What About FREIGHT and BAGS?

There's no extra charge for bags. Shipments of 100 pounds or more will be Prepaid by railroad Freight (NOT Express) if your station is in Penna., N. J., N. Y., Md., Va., Del., West Va., Ohio, Conn., Mass., or R. I. This does NOT apply to seed potatoes, which will be shipped "charge collect." All seeds by Express must go "Collect" (rates too high). MAIL cost is EXTRA (except on items quoted "postpaid").

HOW to PAY

Most folks send payment (check or money order) right along with order . . . that's the best, lowest-cost way. If there's an agent at your freight station, and you would wish to pay extra for the cost of a C. O. D. shipment, that plan could be used. But that collection has gone up too high . . . hate to see our patrons paying it. Payment-with-order is the best plan.

ORDER Hoffman Seeds TODAY

Along with their reasonable freight-paid cost to you, the superior quality of Hoffman Seeds is your greatest opportunity to save. Seed-buying time is so important toward making crop time your real PAY time. It's the crop that counts!

A. H. HOFFMAN, INC.

Landisville (Lancaster County), Pa.

DEPENDABLE

for BETTER CROPS

